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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/662,588 | 09/15/2000 | Fred Irwin | CITI0184 | 1954 |

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| EXAMINER | |
|---|---|
| BORLINGHAUS, JASON M | |
| **ART UNIT** | **PAPER NUMBER** |
| 3693 | |

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| 06/17/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/662,588 | IRWIN ET AL. | |
| | Examiner | Art Unit | |
| | JASON M. BORLINGHAUS | 3693 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *08 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *8-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 5/08/09 has been entered.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 8 – 20, 22 – 25 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus (US Patent 4,674,044) in view of Ichbiah (Ichbiah, J; Barnes, J; Firth, R; and Woodger, M. *Rationale for the Design of the ADA Programming Language. Cambridge University Press*. 1991. pp. 109 - 112 and 149 - 150) and (Coughlin, George Gordon. *Your Handbook Of Everyday Law. 5th Edition. Harper Collins Publishing.* New York, NY. 1993. pp. 50 – 51).

**Regarding Claim 8**, Kalmus discloses a system comprising:

- a customer terminal (brokerage firm's account executives and/or computer equipped customers). (see col. 4, lines 60 – 69);
- a trader terminal (see 15, figure 1) operatively coupled to the customer terminal (see 27 and 29, figure 1) through a computer network (11, 25 and 26, figure 1);
- a processor (CPU – see 10, figure 1);
- wherein the processor (CPU) is involved in a trade request (order generated) from a customer at a customer terminal (brokerage firm's account executives and/or computer equipped customers - see col. 4, lines 60 – 69) further comprising:
- a first component comprising functions for sending messages and receiving messages to the system (CPU – see 10, figure 1) on behalf of the customer (Brokerage House – see 27, figure 1). (see fig. 1; col. 4, lines 41 – 45);

- a second component comprising functions for controlling access (via CUSTID) to the system by the customer. (see col. 5, lines 52 – 54); and
- a third component comprising functions for sending messages to and receiving messages from the first component and a trader (Trader – see 15, figure 1) at the trader terminal. (see 11, figure 1).

Kalmus does not teach a system comprising a processor which is configured to dynamically create sets of class components to handle one or more transactions; wherein each set of class components is dynamically created for each customer attempting to execute a transaction; nor the processor comprises a timer wherein the trade request from the customer is automatically revoked at a predetermined duration of time if the trader does not accept the trade request.

Ichbiach discloses a system comprising:

- a processor which is configured to dynamically create sets of class components (objects) to hand one or more transactions (program executions). (see pp. 109 and 149); and
- wherein each set of class components (objects) is dynamically created for each customer attempting to execute a transaction (program execution). (see pp. 109 and 149).

Coughlin discloses a system comprising a timer wherein the trade request from the customer is automatically revoked at a predetermined duration of time if the trader does not accept the trade request. (see Termination of Offer, p. 50).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Kalmus to allow for his trading system to be encoded or programmed in any computer language that the inventor desired, including object or class-based programming languages, as disclosed by Ichbiach, which were already in use at the time of invention.

Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Kalmus by incorporating an object or class-based programming languages, as disclosed by Ichbiach, due to the numerous benefits of such programming languages – easy programming maintenance, easy to understand and streamlined structure.

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Kalmus and Ichbiach by incorporating into the processor a timer which would revoke the trade request (offer) when such trade request (offer) was not accepted within the predetermined duration of time, as disclosed by Coughlin, to account for time limitations on trade requests (offers) sent to traders.

**Regarding Claims 9 – 14**, Kalmus discloses a system wherein:

- the third component operates in a synchronous (real-time) format. (see col. 10, lines 23 – 26);
- the third component operates in a asynchronous (time delay executability) format. (see col. 10, lines 34 – 36);
- components are configured to handle multiple customers at one time. (see col. 4, lines 45 – 48); and

- components are configured to handle multiple transactions at one time. (see col. 4, lines 45 – 48).

Kalmus does not teach a system wherein the set of class components are configured to handle a single customer at one time; nor the set of class components are configured to handle a single transaction at one time.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to eliminate functionality from Kalmus to reduce its ability to handle multiple customers and multiple transactions at one time, to handle a single customer and a single transaction at one time. Such would have obvious, since it has been held that mere omission of an element and its function in a combination, without more, involves only routine skill in the art. *In re Nelson, 40 CCPA 708, 198 F.2d 837, 95 USPQ 82 ; In re Eliot, 22 CCPA 1088, 76 F.2d 309, 25 USPQ 111; In re Karlson, 136 USPQ 184, 186 (CCPA 1963).*

**Regarding Claim 15**, Kalmus does not teach a system wherein the processor creates sets of class components based on the number of transactions.

Ichbiach discloses a system wherein the processor creates sets of class components (objects) based on the number of transactions (program executions). (see pp. 109 and 149);

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Kalmus, Ichiach and Coughlin by incorporating an object or class-based programming languages, as disclosed by Ichbiach, and all the standard and conventional features inherent in said programming language.

**Regarding Claim 16**, further method claim would have been obvious from system claim rejected above, Claim 8, and is therefore rejected using the same art and rationale.

**Regarding Claim 17**, Kalmus does not teach a method wherein each component is created in response to a customer accessing the system.

Ichbiach discloses a system wherein the processor creates sets of class components (objects) based on the number of transactions (program executions). (see pp. 109 and 149);

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Kalmus, Ichiach and Coughlin by incorporating an object or class-based programming languages, as disclosed by Ichbiach, and all the standard and conventional features of said programming language.

**Regarding Claim 18**, Kalmus discloses a computer program comprising:

- at least one computer-readable medium; and
- a programming module stored on the at least one medium, and operable, upon access of a customer (CUSTID) to trading services of the computer program product for handling one or more transactions involving a trade request from the customer to a trader (see col. 5, lines 52 – 54) to;
- where created programming include at least one of:
- an access control (CUSTID) programming. (see col. 5, lines 52 – 54);
- a trading system communications programming. (see fig. 1); and
- a translator programming (see col. 4, lines 9 – 10).

Kalmus does not teach a computer program comprising a class creation module to create at least one set of classes, each set comprising at least one class; wherein each set of class components is dynamically created for each customer attempting to execute a transaction; a timer module stored on the at least one medium operable to automatically revoke at a predetermined time the trade request from the customer if the trader does not accept the trade request.

Ichbiach discloses a system comprising:

- a class creation module to create at least one set of classes, each set comprising at least one class. (see pp. 109 and 149); and
- wherein each set of class components (objects) is dynamically created for each customer attempting to execute a transaction (program execution). (see pp. 109 and 149).

Coughlin discloses a system comprising a timing module operable to automatically revoke at a predetermined time the trade request (offer) from the customer if the trader does not accept the trade (offer) request. (see Termination of Offer, p. 50).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Kalmus to allow for his trading system to be encoded or programmed in any computer language that the inventor desired, including object or class-based programming languages, as disclosed by Ichbiach, which were already in use at the time of invention.

Furthermore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Kalmus by incorporating an object or class-based programming languages, as disclosed by Ichbiach, due to the numerous benefits of such programming languages – easy programming maintenance, easy to understand and streamlined structure.

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Kalmus and Ichbiach by incorporating a timer module which would revoke the trade request (offer) when such trade request (offer) was not accepted within the predetermined duration of time, as disclosed by Coughlin, to account for time limitations on trade requests (offers) sent to traders.

**Regarding Claims 19 – 20, 22 - 25 and 27**, such claims recite substantially similar limitations as claimed in previously rejected claims and, therefore, would have been obvious based upon previously rejected claims or are otherwise disclosed by the prior art applied in previously rejected claims. Such claim limitations are therefore rejected using the same art and rationale as previously utilized.

**Claims 21 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmus, Ichbiah and Coughlin, as applied to Claims 16 and 23 above, and further in view of Terano (Terano, T; Sugeno, M; Mukaidono, M; Shigemasu, K. *Fuzzy Engineering Toward Human Friendly Systems. Ohmsha*. 1992. pp. 574 – 577).

**Regarding Claim 21**, Kalmus does not teach a computer program where each class being an object linking and embedded class type.

Terano discloses a computer program where each class being an object linking and embedded class type. (see pp. 574 – 577).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Kalmus, Ichiach and Coughlin by incorporating an object or class-based programming languages, as disclosed by Terano, and all the standard and conventional features of said programming language.

**Regarding Claim 26**, such claim recites substantially similar limitations as claimed in previously rejected claims and, therefore, would have been obvious based upon previously rejected claims or are otherwise disclosed by the prior art applied in previously rejected claims. Such claim limitations are therefore rejected using the same art and rationale as previously utilized.

### *Response to Arguments*

Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON M. BORLINGHAUS whose telephone number is (571)272-6924. The examiner can normally be reached on Monday - Friday; 9am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James A. Kramer can be reached on (571)272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason M Borlinghaus/
Primary Examiner, Art Unit 3693
June 13, 2009